

REMARKS

Claims 1-22 will be pending upon entry of the present amendment. Claims 23-25 are being canceled.

The applicants appreciate the Examiner's time and courtesy for participating in a telephone interview with the undersigned attorney on January 23, 2007. It is the applicants' understanding that the Examiner will withdraw the prior art rejections in view of the remarks presented during the telephone interview, which are presented in detail below. Given that claims 23-25, which were subjected to a Section 112 rejection, are being canceled, all claims are believed to be in condition for allowance.

The primary topic discussed during the telephone interview was whether the prior art taught or suggested incorporating the elements recited in claim 1 in a single semiconductor chip. In response to the remarks in the previous response (reproduced below), the Examiner stated that the prior does show the incorporation of the elements of claim 1 on a single chip by incorporating those elements on a printed circuit board, which the Examiner alleged to contain one piece of semiconductor material. The undersigned attorney pointed out that a printed circuit board is not a single piece of semiconductor material and instead is made of an insulating material, typically plastic. The Examiner indicated that such remarks were persuasive.

The following remarks are reproduced for the Examiner's convenience from the response filed on September 5, 2006, except for the removal of arguments pertaining to canceled claims 23-25.

One embodiment of the present invention provides an electronic device for the recording/reproduction of voice data that is entirely integrated in a chip of semiconductor material. It should be emphasized that the components of the electronic device, including the main transmission line, control unit, signal-conversion unit and non-volatile memory unit, are *all integrated in the same chip*. The advantages of this single-chip integration include a smaller device size and reduced power consumption. In addition, the unique architecture of the single-chip integration enables the device to optimize editing of the voice messages itself. Furthermore, the embodiment is characterized by the ability to accept and emit audio signals according to different formats by virtue of an interface circuit. This interface circuit adapts the format of data

exchanged between the signal-conversion unit and the memory unit and implements a strategy of recovery of commands lost or failed.

Claims 1-3 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,694,200 to (“Naim”).

Naim does not disclose the invention recited in claim 1. Claim 1 recites “An electronic device for the recording/reproduction of voice data, comprising: a chip of semiconductor material; a main transmission line *integrated in said chip*; a control unit *integrated in said chip*...; a signal-conversion unit *integrated in said chip*; and a non-volatile memory unit *integrated in said chip*...” (Emphasis added). Like the Walters, Swingle, and Norris references, Naim does not disclose such elements *integrated in the same chip of semiconductor material*. Instead, Naim discloses in the DSP 4, DAC 20, ADC 21, and memory 8 as discrete components in Figures 1B (see col. 6, lines 14-23).

The applicants disagree with the Examiner’s assertion that the paragraph at col. 4, lines 56-67 of Naim discloses a single chip of semiconductor material. That paragraph of Naim recites that the playing/recording player and the hard disk can be incorporated into a single housing or a single substrate, but such a housing and substrate are not disclosed as being a single chip of semiconductor material. Instead, Naim clearly refers to the single substrate as being a single printed circuit board (PCB) 14 rather than a single semiconductor chip (see col. 7, lines 51-55 and Fig. 3). As is well known, such a housing or PCB 14 is not a single chip of semiconductor material. Instead, as is well known, a “chip” of semiconductor material is a single crystal of semiconductor material.

For the foregoing reasons, claim 1 is not anticipated by Naim.

Claims 2-3 depend on claim 1, and thus, also are not anticipated by Naim.

Claims 4-5 and 12-13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Naim in view of Unno et al., EP 0 851 423 A1 (“Unno”).

Naim and Unno do not teach or suggest the invention recited in claims 4 and 5, which depend on claim 1. Unno does not disclose anything about a single-chip integrated electronic device as recited in claim 1. Therefore, because Naim does not include all of the recited elements of claim 1, modifying Naim by incorporating the teachings of Unno (a buffer

memory) would not satisfy the limitations of claims 4 and 5. Accordingly, claims 4-5 are nonobvious in view of the cited prior art.

Although the language of claims 12-13 and 15-16 is not identical to that of claims 4-5, the nonobviousness of claims 12-13 and 15-16 will be apparent in view of the above discussion.

Claims 6 and 7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Naim and Unno in view of U.S. Patent No. 5,787,445 to Daberko.

The cited prior art references do not teach or suggest the invention recited in claims 6 and 7, which depend from claim 1. Daberko does not disclose anything about a single-chip integrated electronic device as recited in claim 1. Therefore, because the teachings of Naim and Unno do not include all of the recited elements of claim 1, modifying those teachings by incorporating the teachings of Daberko (first and second cache memories) would not satisfy the limitations of claims 6 and 7. Accordingly, claims 6-7 are nonobvious in view of the cited prior art.

Claims 8, 14, and 17-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Naim and Unno in view of U.S. Patent No. 6,016,522 to Rossum.

The cited prior art references do not teach or suggest the invention recited in claim 8, which depends from claim 1. Rossum does not disclose anything about a single-chip integrated electronic device as recited in claim 1. Therefore, because the teachings of Naim and Unno do not include all of the recited elements of claim 1, modifying those teachings by incorporating the teachings of Rossum (“ping-pong” buffering) would not satisfy the limitations of claim 8. Accordingly, claim 8 is nonobvious in view of the cited prior art.

Although the language of claims 14 and 17-19 is not identical to that of claim 8, the nonobviousness of claims 14 and 17-19 will be apparent in view of the above discussion.

Claims 9-11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Naim in view of U.S. Patent No. 6,604,168 to Ogawa.

Naim and Ogawa do not teach or suggest the invention recited in claims 9-11. Ogawa does not disclose anything about a single-chip integrated electronic device as recited in claim 1. Therefore, because the teachings of Naim does not include all of the recited elements of

claim 1, modifying those teachings by incorporating the teachings of Ogawa (flash EEPROM management system) would not satisfy the limitations of claims 9-11. Accordingly, claims 9-11 are nonobvious in view of the cited prior art.

Claims 20-22 were rejected under 35 U.S.C. § 103 as being unpatentable over Naim and Unno in view of Ogawa. As discussed above Unno and Ogawa do not teach anything about a single-chip integrated electronic device as recited in claim 15, from which claims 20-22 depend. Accordingly, claims 20-22 are nonobvious in view of the cited prior art.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

All of the claims remaining in the application are now clearly allowable.
Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,
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